

WHAT IS CLAIMED IS:

1. An assembly of a roll of pressure sensitive adhesive tape mounted on a dispenser, the assembly comprising:

a) a roll of pressure sensitive adhesive tape, said tape comprising a backing and a layer of pressure sensitive adhesive on said backing;

i) wherein said backing has an energy to sever of up to 700 N-cm/cm^2 when severed according to The Dispense Test - Plastic Blade;

ii) wherein said backing has an elongation of up to 4% when severed according to The Dispense Test - Plastic Blade;

iii) wherein said backing has an elongation to break of from 40% to 170%; and

iv) wherein said backing comprises a biaxially oriented substrate, wherein said biaxially oriented substrate comprises an isotactic polypropylene composition having an isotacticity of at least 90%, and wherein said biaxially oriented substrate has a melt flow rate of at least 8 grams/10 minutes; and

b) a dispenser, said dispenser including a roll mount having said roll of tape rotatably mounted thereon, and a plastic serrated cutting blade for severing said adhesive tape.

2. The assembly of claim 1, wherein said biaxially oriented substrate comprises a monolayer substrate.

3. An adhesive tape comprising:

a backing and a layer of adhesive on said backing;

wherein said backing has an energy to sever of up to 350 N-cm/cm^2 when severed according to The Dispense Test - Metal Blade and has a tensile elongation to break from above about 55% to about 170%; and

wherein said backing comprises a biaxially oriented substrate, wherein said biaxially oriented substrate comprises an isotactic polypropylene composition, and wherein said biaxially oriented substrate has a melt flow rate of at least 8 grams/10 minutes.

4. The adhesive tape of claim 3, wherein said biaxially oriented substrate comprises a monolayer substrate.

5. The adhesive tape of claim 3, wherein said biaxially oriented substrate comprises a multilayer film, and wherein with respect to the total thickness of said biaxially oriented substrate, at least 50% of the thickness of said biaxially oriented substrate comprises at least 90% isotactic polypropylene.

6. The adhesive tape of claim 5, wherein a first plurality of said layers each comprise at least 90% isotactic polypropylene, and wherein said first plurality of layers comprise at least 50% of the total thickness of said biaxially oriented substrate.

7. The adhesive tape of claim 3, wherein said biaxially oriented substrate has a weight average molecular weight of at least 100,000 grams/mole.

8. The adhesive tape of claim 3, wherein said backing has an elongation of up to 4% when severed according to The Dispense Test - Metal Blade.

9. The adhesive tape of claim 3, wherein said biaxially oriented substrate has a melt flow rate of at least 12 grams/10 minutes.

10. The adhesive tape of claim 9, wherein said biaxially oriented substrate has a melt flow rate of at least 20 grams/10 minutes.

11. The adhesive tape of claim 3, wherein said biaxially oriented substrate has a melt flow rate of from 8 to 100 grams/10 minutes.

12. The adhesive tape of claim 3, wherein said polypropylene composition has an isotacticity greater than about 90%.

13. The adhesive tape of claim 3, wherein said polypropylene composition has a melt flow rate of at least 8 grams/10 minutes.

14. The adhesive tape of claim 13, wherein said polypropylene composition has melt flow rate of at least 12 grams/10 minutes.

5 15. The adhesive tape of claim 14, wherein said polypropylene composition has a melt flow rate of at least 20 grams/10 minutes.

16. The adhesive tape of claim 13, wherein said polypropylene composition has a melt flow rate of from 8 to 100 grams/10 minutes.

10 17. The adhesive tape of claim 3, wherein said polypropylene composition comprises a blend of a first isotactic polypropylene having a first melt flow rate and a second isotactic polypropylene having a second melt flow rate greater than said first melt flow rate.

15 18. The adhesive tape of claim 17, wherein said first melt flow rate is about 0.5 - 8.0 grams/10 minutes and wherein said second melt flow rate is at least 8.0 grams/10 minutes.

20 19. The adhesive tape of claim 18, wherein said second melt flow rate is at least 50 grams/10 minutes.

20. The adhesive tape of claim 18, wherein said second melt flow rate is up to about 150 grams/10 minutes.

25 21. The adhesive tape of claim 19, wherein said first melt flow rate is about 0.5 to 5 grams/10 minutes.

30 22. The adhesive tape of claim 17, wherein said first polypropylene has a weight average molecular weight of at least 350,000 and said second polypropylene has a weight average molecular weight of at least 100,000.

23. The adhesive tape of claim 3, wherein said biaxially oriented substrate has been oriented to a final area stretch ratio of at least 36:1.

24. The adhesive tape of claim 23, wherein said biaxially oriented substrate has been simultaneously biaxially oriented.

25. The adhesive tape of claim 23, wherein said biaxially oriented substrate has been sequentially biaxially oriented.

26. The adhesive tape of claim 3, wherein said adhesive comprises a pressure sensitive adhesive.

27. The adhesive tape of claim 26, wherein said adhesive tape is spirally wound so as to provide a roll of tape.

28. The adhesive tape of claim 27, wherein said roll is mounted on a dispenser including a metal cutting blade.

29. The adhesive tape of claim 27, wherein said roll is mounted on a dispenser including a plastic cutting blade.

30. A backing comprising a biaxially oriented substrate, wherein said biaxially oriented substrate comprises an isotactic polypropylene composition, wherein said biaxially oriented substrate has a melt flow rate of at least 8 grams/10 minutes and a tensile elongation to break from above about 55% to about 170%.

31. The backing of claim 30, wherein said biaxially oriented substrate comprises a monolayer substrate.

32. The backing of claim 30, wherein said biaxially oriented substrate comprises a multilayer film, and wherein with respect to the total thickness of said

biaxially oriented substrate, at least 50% of the thickness of said biaxially oriented substrate comprises at least 90% isotactic polypropylene.

33. The backing of claim 32, wherein a first plurality of said layers each
5 comprise at least 90% isotactic polypropylene, and wherein said first plurality of layers comprise at least 50% of the total thickness of said biaxially oriented substrate.

34. The backing of claim 30, wherein said biaxially oriented substrate has a
weight average molecular weight of at least 100,000 grams/mole.

10 35. The backing of claim 30, wherein said backing has an elongation of up to 4% when severed according to The Dispense Test - Plastic Blade.

36. The backing of claim 30, wherein said biaxially oriented substrate has a
15 melt flow rate of at least 12 grams/10 minutes.

37. The backing of claim 36, wherein said biaxially oriented substrate has a
melt flow rate of at least 20 grams/10 minutes.

20 38. The backing of claim 30, wherein said biaxially oriented substrate has a melt flow rate of from 8 to 100 grams/10 minutes.

39. The backing of claim 30, wherein said polypropylene composition has a
weight average molecular weight of at least 100,000 grams per mole.

25 40. The backing of claim 30, wherein said polypropylene composition has an isotacticity greater than about 90%.

30 41. The backing of claim 30, wherein said polypropylene composition has a melt flow rate of at least 8 grams/10 minutes.

42. The backing of claim 41, wherein said polypropylene composition has melt flow rate of at least 12 grams/10 minutes.

43. The backing of claim 42, wherein said polypropylene composition has a melt flow rate of at least 20 grams/10 minutes.

44. The backing of claim 41, wherein said polypropylene composition has a melt flow rate of from 8 to 100 grams/10 minutes.

45. The backing of claim 30, wherein said polypropylene composition comprises a blend of a first isotactic polypropylene having a first melt flow rate and a second isotactic polypropylene having a second melt flow rate greater than said first melt flow rate.

46. The backing of claim 45, wherein said first melt flow rate is about 0.5 - 8.0 grams/10 minutes and wherein said second melt flow rate is at least 8.0 grams/10 minutes.

47. The backing of claim 46, wherein said second melt flow rate is at least 50 grams/10 minutes.

48. The backing of claim 46, wherein said second melt flow rate is up to about 150 grams/10 minutes.

49. The backing of claim 48, wherein said first melt flow rate is about 0.5 to 5 grams/10 minutes.

50. The backing of claim 45, wherein said first polypropylene has a weight average molecular weight of at least 350,000 and said second polypropylene has a weight average molecular weight of at least 100,000.

51. The backing of claim 30, wherein said biaxially oriented substrate has been oriented to a final area stretch ratio of at least 36:1.

52. The backing of claim 51, wherein said biaxially oriented substrate has been simultaneously biaxially oriented.

5 53. The backing of claim 51, wherein said biaxially oriented substrate has been sequentially biaxially oriented.

54. The backing of claim 30, further comprising a layer of adhesive on said backing.

10 55. The backing of claims 54, wherein said adhesive comprises a pressure sensitive adhesive.

15 56. The backing of claim 55, wherein said adhesive tape is spirally wound so as to provide a roll of tape.

57. The backing of claim 56, wherein said roll is mounted on a dispenser including a metal cutting blade.

20 58. The backing of claim 56, wherein said roll is mounted on a dispenser including a plastic cutting blade.

59. The backing of claim 30 wherein said backing has an energy to sever of up to 700 N-cm/cm² when severed according to The Dispense Test - Plastic Blade.

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